

# UC Troubleshooting



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# Foreword

- This course is mainly:
  - Guide Solutions for Call Voice Related Issues
  - Guide Problems & Solutions for Calling
  - Guide Problems & Solutions for Register

# Course Objective

Through this course  
you will be able to



How To Solve The Problem Of Registration Failure



How To Solve The Problem Of Call Failure



How To Solve Call Voice Related Issues

# Contents

- 1 Chapter One Solution to Registration Failure
- 2 Chapter Two Solution to Call Failure
- 3 Chapter Three Solution to Call Voice Related Issues

# Chapter One

## Solution to Registration Failure

01

1. SIP Extension Registration Failed
2. IMS Account Registration Failed

# • SIP Extension Registration Failed

## • View Configuration

1. Click **Extension & Call Group -> SIP extension-Setting**, check if the account, password, and network interface are correct
2. Click **Extension & Call Group -> SIP extension-Status**, view register source
3. Click **PBX Global Settings->SIP Stack**, Check if the SIP port is correct

| Index | Display Name | Extension | Online | Register Source | Status          | Expires | Agent   | Profile           |
|-------|--------------|-----------|--------|-----------------|-----------------|---------|---------|-------------------|
| 1     | 6001         | 6001      | 1      | 172.27.10.25060 | Registered(UDP) | 98      | unknown | 1-< GEO_Default > |
| 2     | 6005         | 6005      | 0      |                 | Unregistered    |         |         | 1-< GEO_Default > |
| 3     | 8032         | 8032      | 0      |                 | Unregistered    |         |         | 1-< GEO_Default > |
| 4     | 66286606     | 6606      | 0      |                 | Unregistered    |         |         | 1-< GEO_Default > |

| Index | Name                | Listening Addr     | State   | Current Call |
|-------|---------------------|--------------------|---------|--------------|
| 1     | GEO_Default         | 172.27.10.14:5060  | RUNNING | 0            |
|       | GEO_Default(WebRTC) | 172.27.10.14:7443  | RUNNING |              |
| 2     | GE1_Default         | 172.18.249.92:5060 | RUNNING | 0            |

# • SIP Extension Registration Failed

- Check the network environment

Click **Maintenance – Diagnostics-**

**Network** ,enter the registered terminal IP and check if it can be pinged

The screenshot displays the DINSTAR web interface for network diagnostics. On the left sidebar, the 'Diagnostics' menu item is highlighted with a red box and a circled '1'. The main content area shows the 'Diagnostics' section with the 'Network' tab selected, indicated by a red box and a circled '2'. Below the tab, the 'Network Utilities' section contains a text input field with the IP address '172.28.7.49' and a 'Ping' button, both enclosed in a red box with a circled '3'. The ping results are displayed below the input field, showing a successful ping with 5 packets transmitted, 5 received, and 0% loss. The 'Network Capture' section is also visible at the bottom.

Command Line **Network** Call Trace

Network Utilities

172.28.7.49 Ping Traceroute

PING 172.28.7.49 (172.28.7.49): 56 data bytes  
64 bytes from 172.28.7.49: seq=0 ttl=62 time=21.768 ms  
64 bytes from 172.28.7.49: seq=1 ttl=62 time=21.809 ms  
64 bytes from 172.28.7.49: seq=2 ttl=62 time=22.908 ms  
64 bytes from 172.28.7.49: seq=3 ttl=62 time=21.864 ms  
64 bytes from 172.28.7.49: seq=4 ttl=62 time=22.908 ms

--- 172.28.7.49 ping statistics ---  
5 packets transmitted, 5 packets received, 0% packet loss  
round-trip min/avg/max = 21.768/22.251/22.908 ms

Network Capture

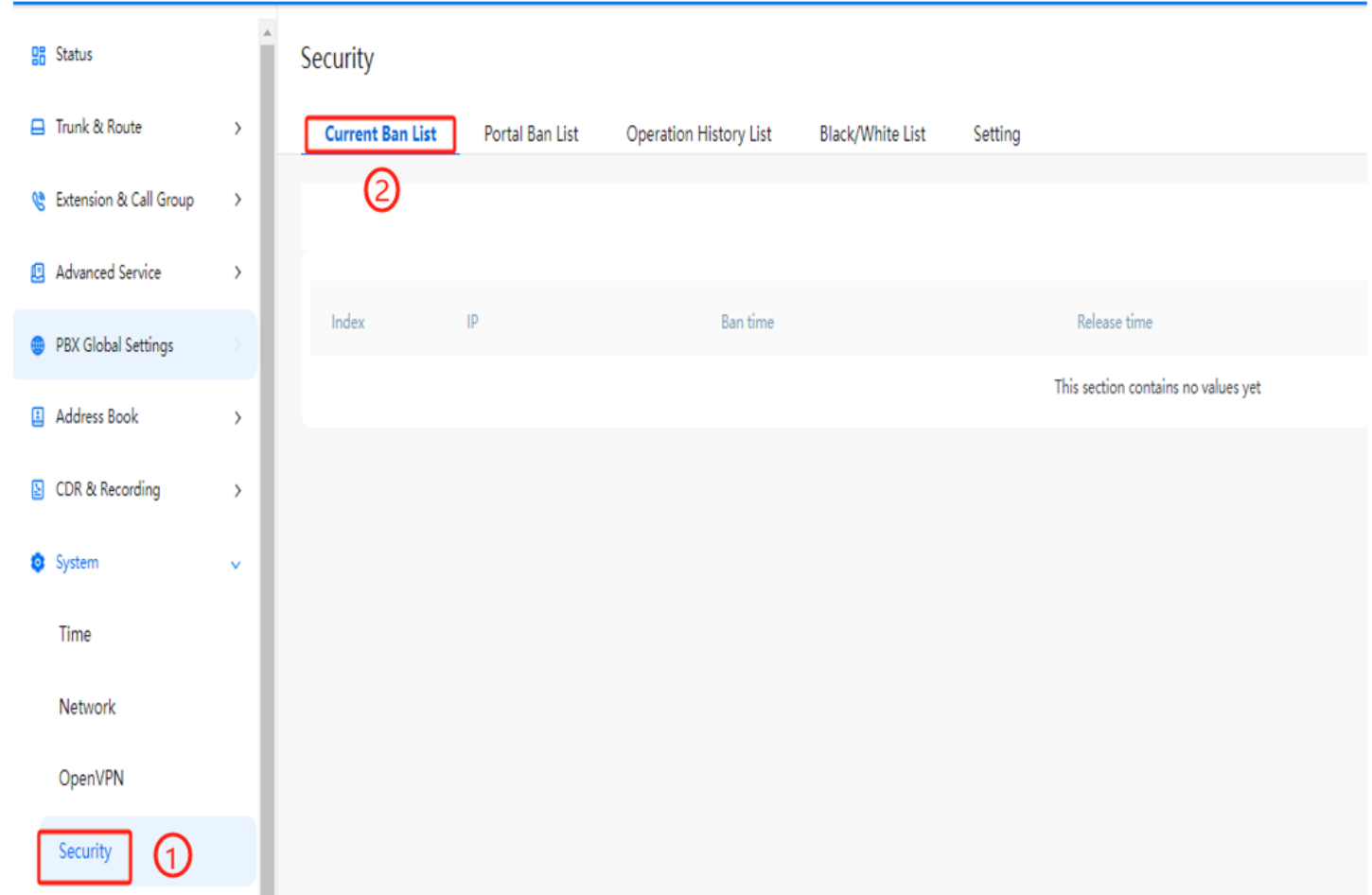
Network Interface GE1(172.18.249.92)  
Logical Type OR  
Source IP  
Source Port

# • SIP Extension Registration Failed

- Check Fail2ban

In the **System ->Security ->Current Ban List**, check if the terminal IP is banned:

If banned, it needs to be unbanned, The reasons for banning are generally due to incorrect password input, too many failed registrations, or too many registrations in a short period of time.

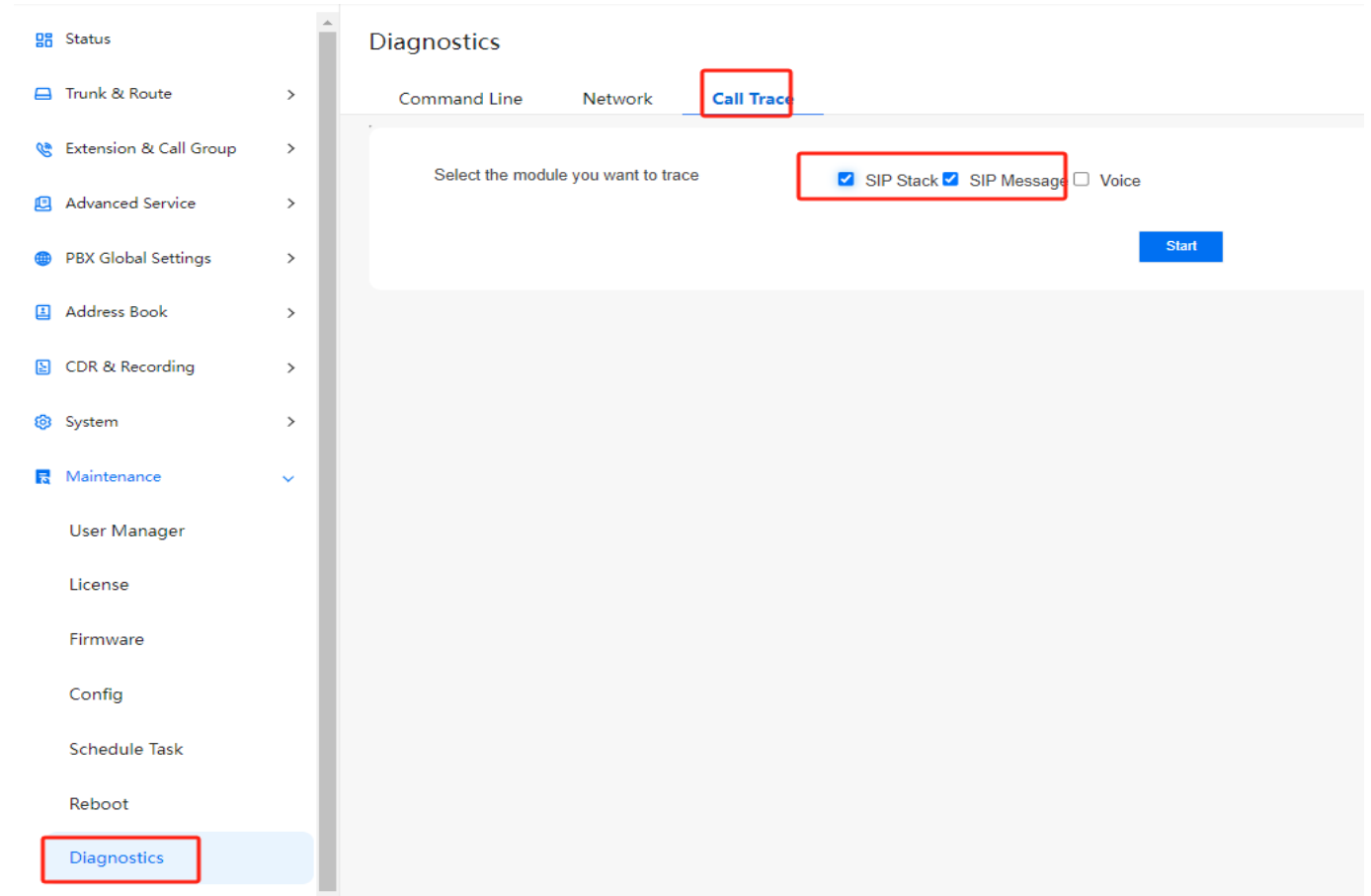




# • SIP Extension Registration Failed

## • Call Trace

1. Click **Maintenance - Diagnostics - Call Trace**, select SIP stack and SIP message, click Start
2. Registration terminal initiates registration again
3. Click Stop & Download to view logs and capture packets



# • IMS Account Registration Failed

## • View Configuration

Click **Trunk & Route**-> **SIP Trunk-Setting**

1. Check the IMS domain name , IP address
2. Check the account, Auth Username, password, Expire Seconds and network interface
3. Check if the From header User Part , Display Name and Host have been modified

The screenshot displays the Dinstar SIP Trunk configuration interface. On the left, a sidebar menu shows 'Trunk & Route' expanded, with 'SIP Trunk' selected. The main area shows a table of SIP trunks. The first trunk, 'IMS', is highlighted. Below the table, the configuration details for the selected trunk are shown. Red boxes highlight the following fields:

- Address: imshwi.claro.com.gt
- Port: 5060
- Outbound Proxy: 10.78.183.83
- Port: 5060
- Transport: UDP
- Register: ON
- Register Way: Single Register
- Username: +50225098032
- Auth Username: +50225098032@imshwi.claro.com.gt
- Password: [REDACTED]
- Specify Transport Protocol on Register URL: ON
- Expire Seconds: 3600

A notification banner at the top right indicates 'E1/T1 Userboard Upgrade Required!' with a link to 'Go to system upgrade...'.

| Index | Name           | Count | Address                            | Transport | Register | Heartbeat | Status         | Call In(T) | Call Out(T) | Profile         |
|-------|----------------|-------|------------------------------------|-----------|----------|-----------|----------------|------------|-------------|-----------------|
| 1     | IMS            | 0/1   | +50225098032@imshwi.claro.com.gt   | UDP       | On       | Off       | FAIL_WAIT/DOWN | 0/0        | 0/0         | 2-<GE1_Default> |
| 2     | 22568860       | 0/1   | +5022568860@imshwi.claro.com.gt    | UDP       | On       | Off       | FAIL_WAIT/DOWN | 0/0        | 0/0         | 2-<GE1_Default> |
| 3     | Backup25098032 | 0/1   | +50225098032@imshwi.claro.com.gt   | UDP       | On       | Off       | FAIL_WAIT/DOWN | 0/0        | 0/0         | 2-<GE1_Default> |
| 4     | 22             | 1/1   | 172.27.10.65071                    | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 5     | MTG            | 1/1   | 172.28.5.1355060                   | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 6     | ims1           | 0/2   | +8659166286606@ims.5.chinamobil... | UDP       | On       | Off       | TRYING/DOWN    | 0/0        | 0/0         | 1-<GE0_Default> |
| 7     | FXO            | 1/1   | 172.27.10.95060                    | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 8     | 172.28.51.105  | 1/1   | 172.28.51.105.20600                | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 9     | sbc            | 1/1   | 172.28.3.115065                    | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 10    | IVR            | 1/1   | 172.27.10.195060                   | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |
| 11    | from_uc        | 1/1   | 172.27.10.45060                    | UDP       | Off      | Off       | NOREG/UP       | 0/0        | 0/0         | 1-<GE0_Default> |

# • IMS Account Registration Failed

- Check the network environment

Click **Maintenance - Diagnostics-**

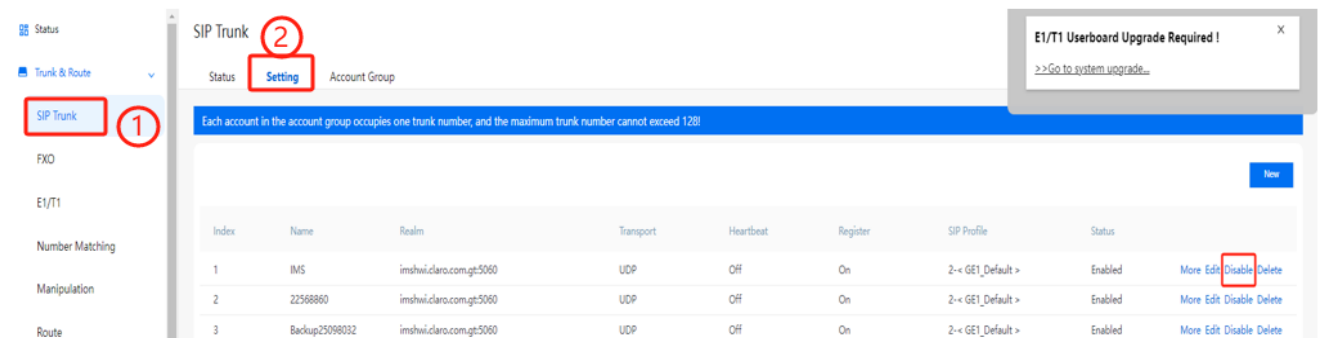
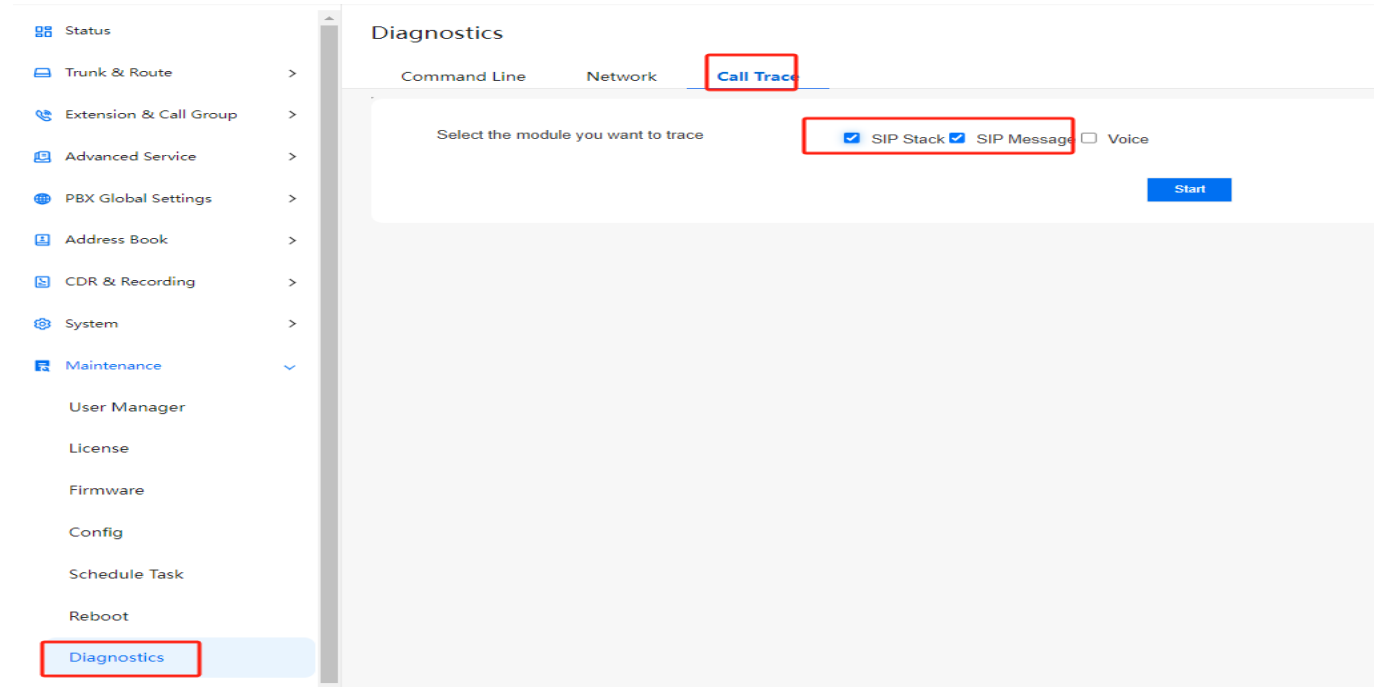
**Network** , enter the IP address of the IMS proxy server and check if the network is interoperable

The screenshot displays the DINSTAR web interface. On the left sidebar, the 'Diagnostics' menu item is highlighted with a red box and labeled with a red circle (1). The main content area shows the 'Diagnostics' section with three tabs: 'Command Line', 'Network' (highlighted with a red box and labeled with a red circle 2), and 'Call Trace'. Under the 'Network' tab, the 'Network Utilities' section contains an input field with the IP address '10.78.183.83' and a 'Ping' button, both enclosed in a red box and labeled with a red circle (3). Below this, the ping results are displayed: 'PING 10.78.183.83 (10.78.183.83): 56 data bytes', '--- 10.78.183.83 ping statistics ---', and '5 packets transmitted, 0 packets received, 100% packet loss'. The 'Network Capture' section is also visible, showing fields for Network Interface, Logical Type, Source IP, Source Port, Destination IP, and Destination Port.

# • IMS Account Registration Failed

## • Call Trace

1. Click **Maintenance - Diagnostics - Call Trace**, select SIP stack and SIP message, click Start
2. The SIP trunk corresponding to IMS should be disabled first, then enable
3. Click Stop & Download to view logs and capture packets



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# Chapter Two

## Solution to Call Failure

02

1. Unable to Call In IVR
2. Call Out Failed

# Unable to Call In IVR

- View Route

1. Click **Trunk & Route-> Route**, check if the route source is correct and if the destination is IVR
2. Check the priority of routes from the same source

**Edit Route**

Source

Number Matching: Off

Caller Number Prefix:

Called Number Prefix:

Time Profile: Any

**Action**

Callback: ☒

Distinctive Ringtone(Alert-Info): None

Manipulation: Off

Destination: IVR / IVR

**Route**

Route Group: Route Classification Tag

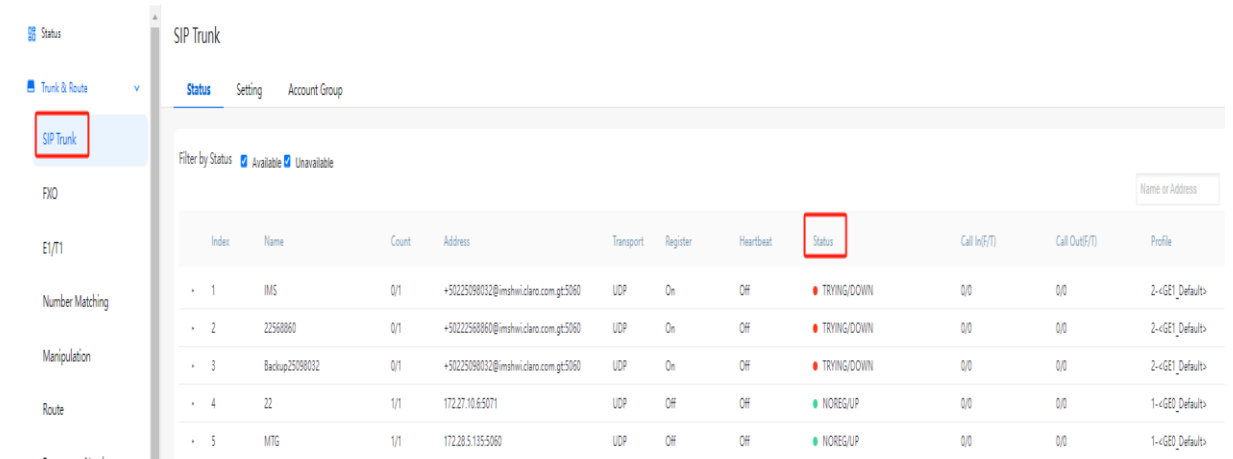
Filter By Tag: [New] [Set]

| Priority | Name | Source | Num Match | Caller Prefix | Called Prefix | Time | Action: Manipulation/Dest | Fallover: Manipulation/Dest | More Edit Delete MoveDown        |
|----------|------|--------|-----------|---------------|---------------|------|---------------------------|-----------------------------|----------------------------------|
| 283      | in   | FXO    | Off       | Any           | Any           | Off  | Off / IVR                 | Not Config                  | More Edit Delete MoveDown        |
| 284      | from | FXO    | Off       | Any           | Any           | Off  | Off / Local Extension     | Not Config                  | More Edit Delete MoveUp MoveDown |

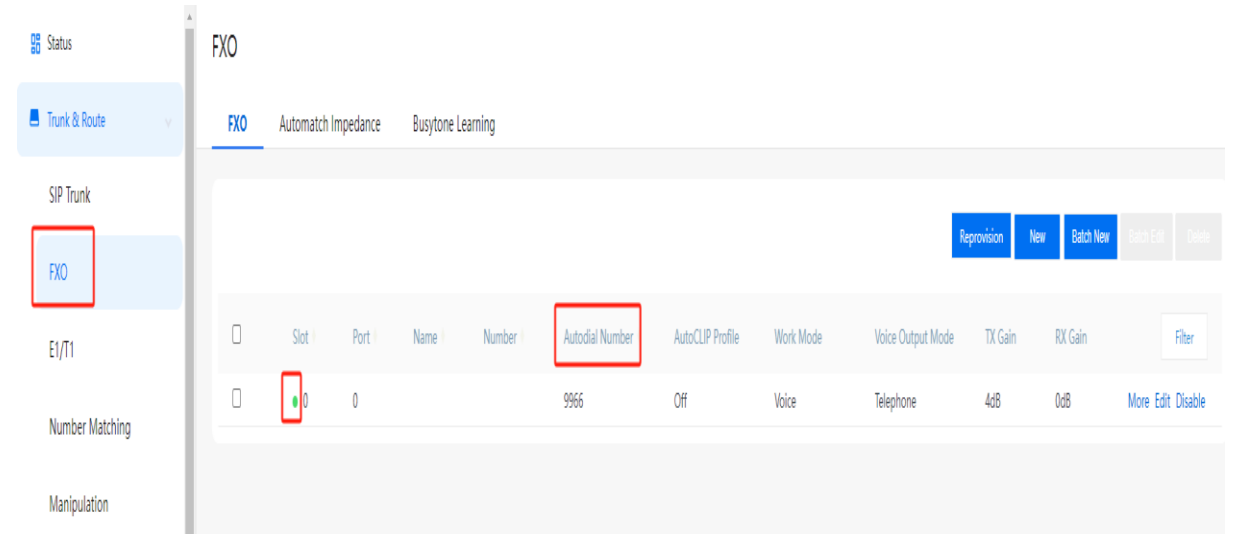
# Unable to Call In IVR

- View Trunk status

1. SIP Trunk-IVR, click **Trunk & Route-> SIP Trunk** check SIP trunk status
2. FXO Trunk-IVR , click **Trunk & Route-> FXO** check FXO trunk status
3. FXO Trunk-IVR, FXO trunk needs to configure an autodial Number



| Index | Name           | Count | Address                          | Transport | Register | Heartbeat | Status      | Call In(T/T) | Call Out(T/T) | Profile         |
|-------|----------------|-------|----------------------------------|-----------|----------|-----------|-------------|--------------|---------------|-----------------|
| 1     | IMS            | 0/1   | +50225090032@msnwi.claro.gt.5060 | UDP       | On       | Off       | TRYING/DOWN | 0/0          | 0/0           | 2-<GE1_Default> |
| 2     | 22568860       | 0/1   | +5022568860@msnwi.claro.gt.5060  | UDP       | On       | Off       | TRYING/DOWN | 0/0          | 0/0           | 2-<GE1_Default> |
| 3     | Backup25090032 | 0/1   | +50225090032@msnwi.claro.gt.5060 | UDP       | On       | Off       | TRYING/DOWN | 0/0          | 0/0           | 2-<GE1_Default> |
| 4     | 22             | 1/1   | 172.27.10.6.5071                 | UDP       | Off      | Off       | NOREG/UP    | 0/0          | 0/0           | 1-<GE0_Default> |
| 5     | MTG            | 1/1   | 172.28.5.135.5060                | UDP       | Off      | Off       | NOREG/UP    | 0/0          | 0/0           | 1-<GE0_Default> |



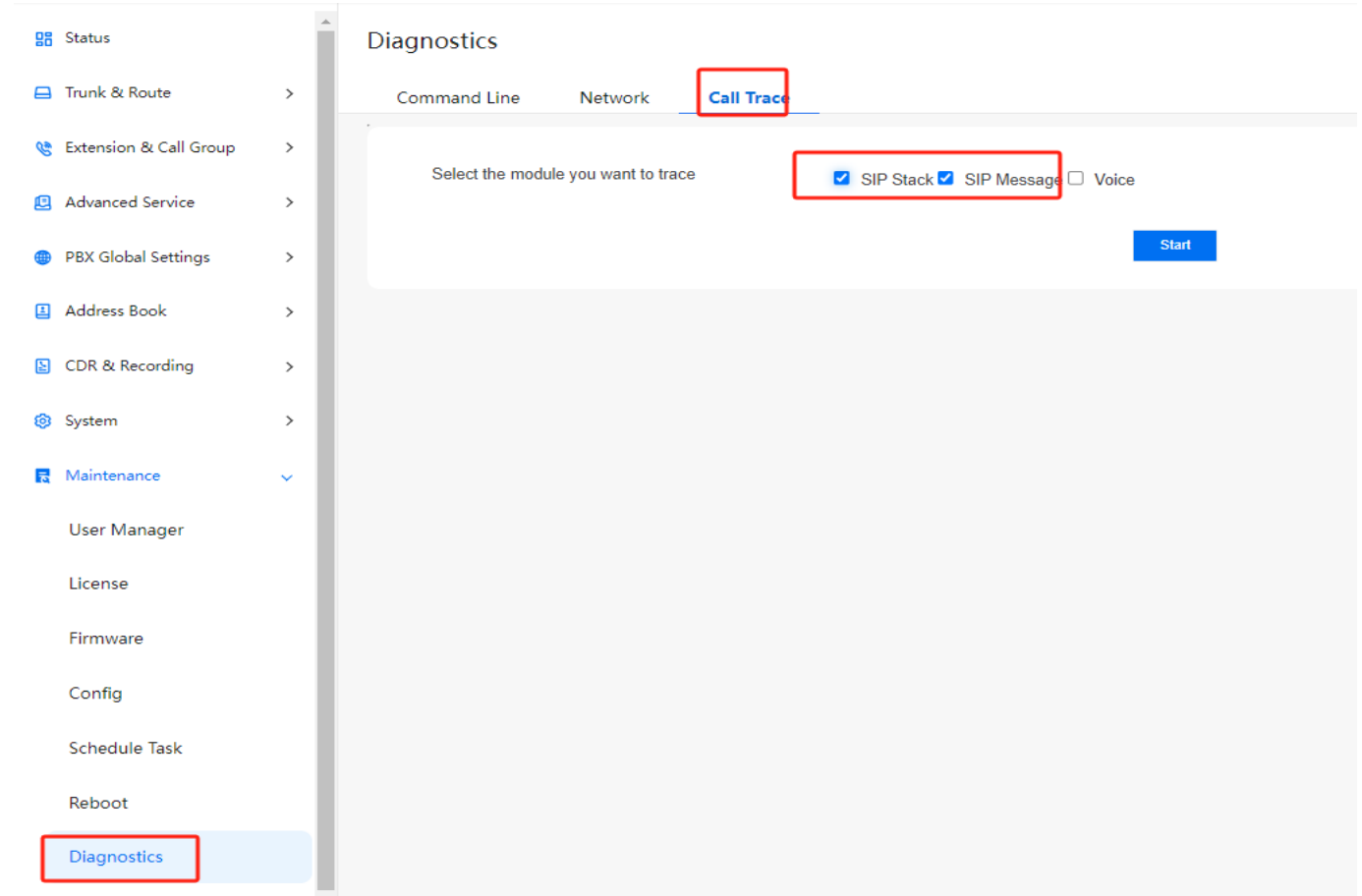
| Slot | Port | Name | Number | Autodial Number | AutoCLIP Profile | Work Mode | Voice Output Mode | TX Gain | RX Gain | Filter            |
|------|------|------|--------|-----------------|------------------|-----------|-------------------|---------|---------|-------------------|
| 0    | 0    |      | 9966   |                 | Off              | Voice     | Telephone         | 4dB     | 0dB     | More Edit Disable |



# Unable to Call In IVR

- Call Trace

1. Click **Maintenance - Diagnostics - Call Trace**, select SIP stack and SIP message, click Start
2. Call in again and reproduce the problem
3. Click Stop & Download to view logs and capture packets



# Call Out Failed

- View Status

1. Click **Extension & Call Group -> SIP extension**, check if the extension has been successfully registered
2. click **Trunk & Route-> SIP Trunk /FXO/E1/T1**, Check if the status is normal

The image shows two screenshots of the Dinstar web interface. The top screenshot displays the 'SIP Extension' status page, and the bottom screenshot displays the 'SIP Trunk' status page. Both pages have a sidebar on the left with navigation options.

**SIP Extension Page:**

- Left sidebar: Status, Trunk & Route, Extension & Call Group (selected), FXS, Phones, Extension Group, Ring Group.
- Sub-menu: SIP Extension (highlighted with a red box).
- Page title: SIP Extension.
- Tabs: Status (selected), Setting, Classification Tag.
- Filter by Status: ☒ Register ☒ Unregistered.
- Table:

| Index | Display Name | Extension | Online | Register Source  | Status          | Expires | Agent                     | Profile           |
|-------|--------------|-----------|--------|------------------|-----------------|---------|---------------------------|-------------------|
| 1     | 1008611      | 1008611   | 0      |                  | Unregistered    |         |                           | 1-< GEO_Default > |
| 2     | 1008612      | 1008612   | 0      |                  | Unregistered    |         |                           | 1-< GEO_Default > |
| 3     | 1003         | 1003      | 1      | 172.28.8.98:5060 | Registered(UDP) | 324     | DAG1000-8S DAG 2.83.11.20 | 1-< GEO_Default > |

**SIP Trunk Page:**

- Left sidebar: Status, Trunk & Route (selected), SIP Trunk, FXO (highlighted with a red box), E1/T1, Number Matching, Manipulation, Route, Emergency Number, PIN List, Blocked/Allowed Numbers, AutoCLIP, SMS Route.
- Page title: SIP Trunk.
- Tabs: Status (selected), Setting, Account Group.
- Filter by Status: ☒ Available ☒ Unavailable.
- Table:

| Index | Name           | Count | Address                                  | Transport | Register | Heartbeat | Status         |
|-------|----------------|-------|--|-----------|----------|-----------|----------------|
| 1     | IMS            | 0/1   | +50225098032@imshwi.claro.com.gt:5060    | UDP       | On       | Off       | FAIL_WAIT/DOWN |
| 2     | 22568860       | 0/1   | +5022568860@imshwi.claro.com.gt:5060     | UDP       | On       | Off       | FAIL_WAIT/DOWN |
| 3     | Backup25098032 | 0/1   | +50225098032@imshwi.claro.com.gt:5060    | UDP       | On       | Off       | FAIL_WAIT/DOWN |
| 4     | 22             | 1/1   | 172.27.10.6:5071                         | UDP       | Off      | Off       | NOREG/UP       |
| 5     | MTG            | 1/1   | 172.28.5.135:5060                        | UDP       | Off      | Off       | NOREG/UP       |
| 6     | ims1           | 0/2   | +8659166286606@ims.fj.chinamobile.com... | UDP       | On       | Off       | TRYING/DOWN    |
| 7     | FXO            | 1/1   | 172.27.10.9:5060                         | UDP       | Off      | Off       | NOREG/UP       |
| 8     | 172.28.51.105  | 1/1   | 172.28.51.105:20600                      | UDP       | Off      | Off       | NOREG/UP       |
| 9     | sbc            | 1/1   | 172.28.3.11:5065                         | UDP       | Off      | Off       | NOREG/UP       |
| 10    | IVR            | 1/1   | 172.27.10.19:5060                        | UDP       | Off      | Off       | NOREG/UP       |
| 11    | from_uc        | 1/1   | 172.27.10.4:5060                         | UDP       | Off      | Off       | NOREG/UP       |

# Call Out Failed

- View Configuration

1. Local extension - SIP Trunk, check if the IP and port of SIP trunk are correct
2. Check the route configuration. In the case of multiple SIP trunks and FXO trunks, please confirm whether the destination trunk selection under the route configuration is correct
3. If calling between local extensions, please confirm if the configuration is enabled

| Priority | Name     | Source          | Num Match | Caller Prefix | Called Prefix | Time     | Action: Manipulation/Dest | Failover: Manipulation/Dest |                                  |
|----------|----------|-----------------|-----------|---------------|---------------|----------|---------------------------|-----------------------------|----------------------------------|
| 284      | fron     | Custom          | Off       | Any           | Any           | Off      | Off / MTG                 | Not Config                  | More Edit Delete MoveDown        |
| 286      | outfo    | Custom          | Off       | Any           | Any           | Off      | Off / FXO                 | Not Config                  | More Edit Delete MoveUp MoveDown |
| 287      | call_fro | Local Extension | Off       | Any           | Any           | Off      | Off / FXO                 | Not Config                  | More Edit Delete MoveUp MoveDown |
| 288      | sbc2     | sbc             | Off       | Any           | Any           | Off      | Off / Local Extension     | Not Config                  | More Edit Delete MoveUp MoveDown |
| 289      | 工作时间     | 22568860        | Off       | Any           | Any           | 1-4 工作时间 | Off / Local Extension     | Not Config                  | More Edit Delete MoveUp MoveDown |

**Voice**

Setting File List Voice Record

**Tone**

Voice Language: English

Waiting Music: Default Tone

Timeout Tone: Off

Busy Tone: Off

Offline Tone: Off

Call Waiting Tone: Default Tone

Number Invalid Tone: Off

Reject Tone: Off

NotAuth Tone: Off

Recording Prompt Tone: Off

**Route**

Area Call Auth: ☐

Local extension call: ☒

# Call Out Failed

- View CDR

Click **CDR & Recording->CDRs**, View the reason for call failure and the specific call process

Status

Trunk & Route

Extension & Call Group

Advanced Service

PBX Global Settings

Address Book

CDR & Recording

Current Call

CDRs

CDRs

Recording

Query Param

Expand

CDRs List

EmptyExportExport Query

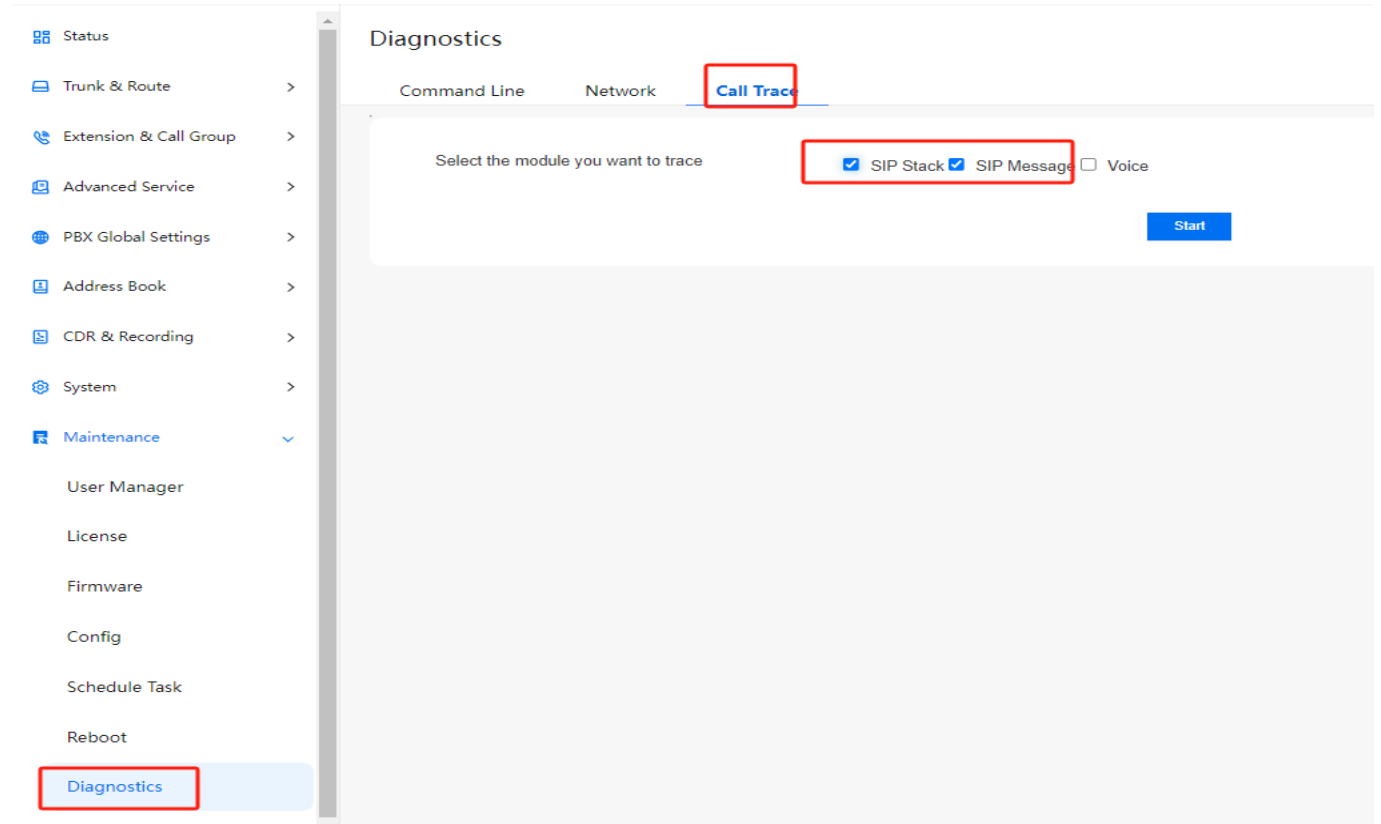
| Index | Caller | Source             | Called | Destination        | Start Time          | End Time            | Duration | Hangup By | Codec | Hangup Cause    | Operation | Filter |
|-------|--------|--------------------|--------|--------------------|---------------------|---------------------|----------|-----------|-------|-----------------|-----------|--------|
| 1     | 1006   | SIP Extension/1006 | 1003   | SIP Extension/1003 | 2025-07-10 09:30... | 2025-07-10 09:30... | 00:00:14 | Called    | PCMA  | Normal Clearing |           |        |
| 2     | 1006   | SIP Extension/1006 | 1003   | SIP Extension/1003 | 2025-07-10 09:16... | 2025-07-10 09:16... | 00:00:00 | Called    | PCMA  | U               |           |        |
| 3     | 1006   | SIP Extension/1006 | 1003   | SIP Extension/1003 | 2025-07-10 09:16... | 2025-07-10 09:16... | 00:00:00 | Caller    | PCMA  | Caller Cancel   |           |        |
| 4     | 1003   | SIP Extension/1003 | 1006   | SIP Extension/1006 | 2025-07-10 09:16... | 2025-07-10 09:16... | 00:00:00 | Called    | PCMU  | User Busy       |           |        |

| 编号 | Caller Signaling                  | Called signaling                 | 时间                         |
|----|-----------------------------------|----------------------------------|----------------------------|
| 1  | 172.28.72.139-5060<br>INVITE(sdp) | 172.28.4.198-5060                | 2024-12-20 15:44:26.464543 |
| 2  | 172.28.72.139-5060<br>180 Trying  | 172.28.4.198-5060                | 2024-12-20 15:44:26.464896 |
| 3  |                                   | 172.28.4.198-5060<br>INVITE(sdp) | 2024-12-20 15:44:26.505968 |
| 4  |                                   | 172.28.4.198-5060<br>180 Trying  | 2024-12-20 15:44:26.510274 |
| 5  |                                   | 172.28.4.198-5060<br>180 Ringing | 2024-12-20 15:44:26.520039 |
| 6  | 172.28.72.139-5060<br>180 Ringing | 172.28.4.198-5060                | 2024-12-20 15:44:26.526900 |
| 7  |                                   | 172.28.4.198-5060<br>200 OK(sdp) | 2024-12-20 15:44:29.354335 |
| 8  |                                   | 172.28.4.198-5060<br>ACK         | 2024-12-20 15:44:29.358924 |
| 9  | 172.28.72.139-5060<br>200 OK(sdp) | 172.28.4.198-5060                | 2024-12-20 15:44:29.381590 |
| 10 | 172.28.72.139-5060<br>ACK         | 172.28.4.198-5060                | 2024-12-20 15:44:29.384069 |
| 11 |                                   | 172.28.4.198-5060<br>BYE         | 2024-12-20 15:44:48.040808 |
| 12 |                                   | 172.28.4.198-5060<br>200 OK      | 2024-12-20 15:44:48.417253 |
| 13 | 172.28.72.139-5060<br>BYE         | 172.28.4.198-5060                | 2024-12-20 15:44:48.421917 |
| 14 | 172.28.72.139-5060<br>200 OK      | 172.28.4.198-5060                | 2024-12-20 15:44:49.032633 |

# Call Out Failed

- Call Trace

1. Click **Maintenance - Diagnostics - Call Trace**, select SIP stack and SIP message, click Start
2. Call out again and reproduce the problem
3. Click Stop & Download to view logs and capture packets



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# Chapter Three

## Solution to Call Voice Related Issues

03

1. Unable to Record
2. Call Without Sound

# Unable to Record

- View Configuration

1. Click **Extension & Call Group -> SIP extension**, Check if recording is enabled
2. Click **Trunk & Route-> Route**, Check if recording is enabled
3. Both are configured as needed

Edit SIP Extension

SIP Extension User Info SIP Phone

Call Forward Unconditional Off

Call Forward Unregister Off

Call Forward Busy Off

Call Forward No Reply Off

Call Back When Dest Ext Busy On

Priority Normal

Ringtone Off

Ring Timeout(s) 50

Allow Being Monitored On

Monitor Mode Disable

Recording Profile 1-< auto\_record >

Voicemail On

New Route

Number Matching Off

Caller Number Prefix

Called Number Prefix

Time Profile Any

Action

Callback On

Distinctive Ringtone(Alert-Info) None

Manipulation Off

Destination IVR / IVR

Password Type Off

Recording Profile 1-< auto\_record >

Fallover Action On



# Unable to Record

- View Recording Storage Location

Click **CDR & Recording->CDRs->Recording**, View recording mode and storage location

CDRs

Recording

Recording Mode: Local Recording

Master Storage Location: Local

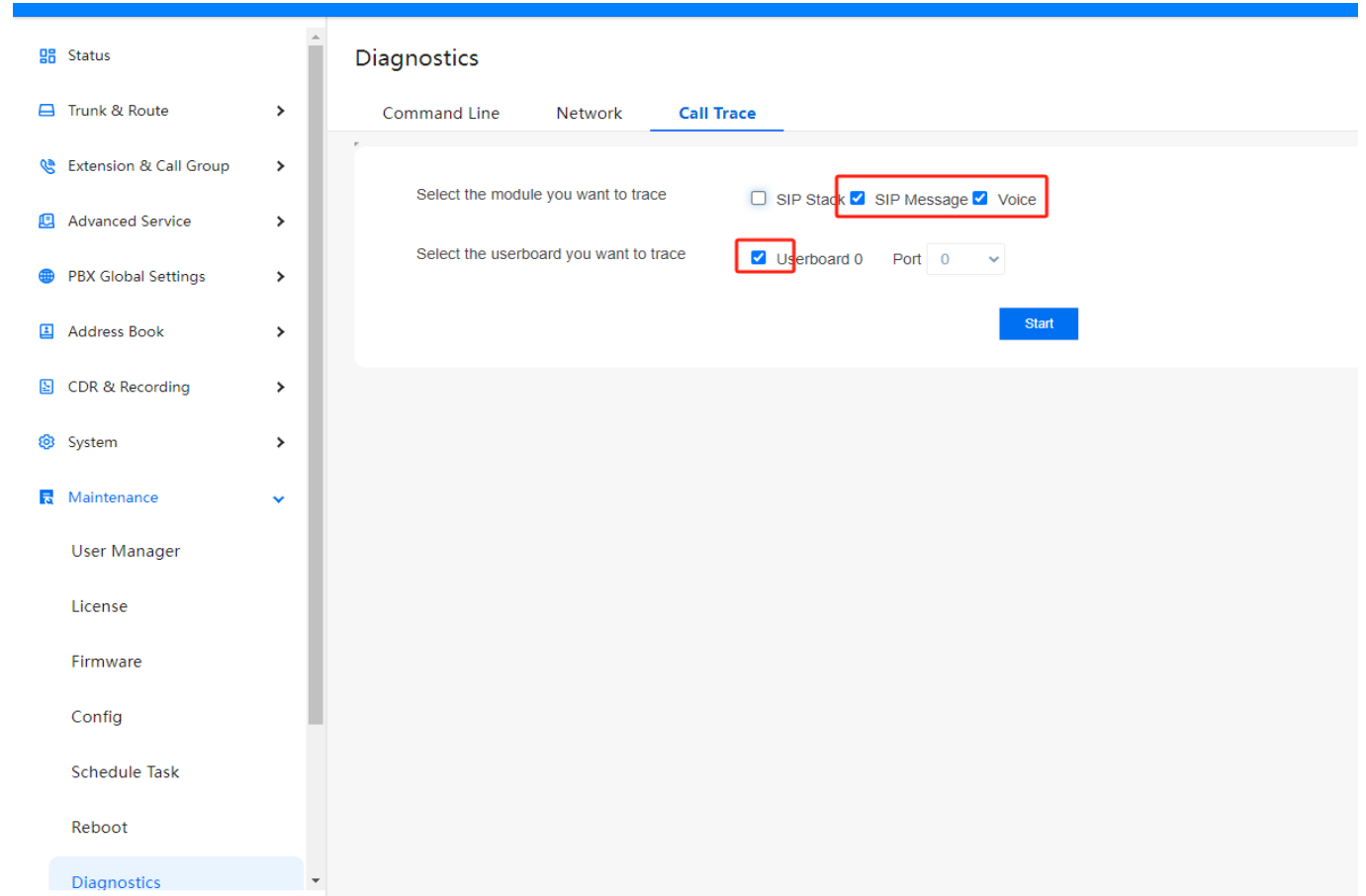
Slave Storage Location: Local

| Index | Name          | Strategy                      | Recording Direction | Stereo | Min Duration(s) | Silence |
|-------|---------------|-------------------------------|---------------------|--------|-----------------|---------|
| 1     | auto_record   | Auto Recording After Answer   | Inbound & Outbound  | Off    | 1               | Off/-/- |
| 2     | manual_record | Manual Recording After Answer | Inbound & Outbound  | Off    | 1               | Off/-/- |

# Call Without Sound

- Call Trace

1. Click **Maintenance - Diagnostics - Call Trace**, select SIP message and voice, click Start
2. Call again and reproduce the problem
3. Click Stop & Download to view capture packets





# THANKS



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